

**WEATHER FORECAST AND WARNING
PORTAL FOR RURAL FISHERMEN**

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WEATHER FORECAST AND WARNING PORTAL FOR RURAL FISHERMEN

A report submitted Dean of Postgraduate Studies and Research
in partial fulfilment of the requirement the degree
Master of Science of Information Communication Technology
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ABSTRAK

Nelayan menaruh kehidupan mereka di ambang maut setiap kali mereka pergi ke laut. Hal ini lebih buruk jika cuaca di laut buruk. Satu sistem ramalan cuaca dan amaran akan dapat membantu nelayan membuat keputusan yang lebih baik sebelum mereka pergi ke laut. Ini akan membantu mengurangkan kos mereka dan membantu menyelamatkan nyawa. Fokus utama kajian ini adalah untuk merancang model keperluan peramalan cuaca dan aplikasi peringatan untuk nelayan luar bandar dengan menggunakan portal. Pada akhir projek ini, portal akan dibina berdasarkan keperluan sistem. Harapan dari projek ini adalah bahawa portal perkhidmatan ramalan cuaca akan sepenuhnya digunakan oleh para nelayan luar bandar untuk merujuk maklumat berkaitan cuaca pada bila-bila masa dan di mana saja melalui aplikasi internet.

ABSTRACT

Fishermen put their lives on the brink every time they go out to the sea. This is worse if the weather at the sea is bad. A weather forecast and warning system will help fishermen make better decisions before them to go out to the sea. This will help reduce their costs and help save lives. The main focus of this research is to design a requirement model of the weather forecasting and warning application to rural fishermen by using a portal. At the end of this project, a portal will be designed based on the requirement model of this system. The expectation of this project is that the weather forecast service portal will be fully utilized by the rural fishermen to refer when they require the information about weather anytime anywhere via the Internet.

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| CONTENTS | PAGE |
|--------------------------------------|-------------|
| PERMISSION TO USE | i |
| ABSTRAK | ii |
| ABSTRACT | iii |
| ACKNOWLEDGMENTS | iv |
| TABLE OF CONTENT | v |
| LIST OF TABLES | ix |
| LIST OF FIGURES | ix |
| LIST OF BAR CHARTS | x |
| LIST OF ABBREVIATIONS | xi |
| CHAPTER ONE: INTRODUCTION | |
| 1.0 Introduction | 1 |
| 1.1 The weather in Malaysia | 2 |
| 1.2 Problem Statement | 4 |
| 1.3 Research Objectives | 5 |
| 1.4 Research Questions | 5 |
| 1.5 Scope and Limitation of Research | 5 |
| 1.6 Significance of research | 5 |
| 1.7 Report structure | 6 |
| 1.8 Summary | 6 |

| CONTENTS | PAGE |
|---|-------------|
| CHAPTER TWO: LITERATURE REVIEW | |
| 2.0 Introduction | 7 |
| 2.1 Categorization of portal and blog | 8 |
| 2.2 Definition of Weather Forecast | 9 |
| 2.3 Definition Rural and Fishermen | 9 |
| 2.4 Definitions of Functional Requirement | 10 |
| 2.5 Definitions of Non-Functional Requirement | 12 |
| 2.6 Prototyping Requirement | 12 |
| 2.7 Extensible Markup Language | 14 |
| 2.8 Related Works | 15 |
| 2.9 Summary | 16 |

CHAPTER THREE: RESEARCH METHODOLOGY

| | |
|---|----|
| 3.0 Introduction | 17 |
| 3.1 An important phase in the prototyping methodology | 19 |
| 3.1.1 Planning | 19 |
| 3.1.2 Analysis | 20 |
| 3.1.3 Design | 20 |
| 3.1.4 Implementation | 21 |
| 3.2 Methodology of data collection | 22 |
| 3.3 Methodology of data interpretation | 22 |
| 3.4 Summary | 23 |

| CONTENTS | PAGE |
|--|---|
| CHAPTER FOUR: FINDING AND RESULTS | |
| 4.0 | Introduction 24 |
| 4.1 | The phases of prototyping methodology 24 |
| 4.1.1 | Planning the portal formation 24 |
| 4.1.1.1 | Features planning and contents of portal 24 |
| 4.1.2 | Requirements analysis of portal development 27 |
| 4.1.2.1 | List Requirements of WFWP 27 |
| 4.1.2.2 | Purpose requirements WFWP for fisherman 28 |
| 4.1.2.3 | Requirement ID and name 28 |
| 4.1.2.4 | Functional and non-functional requirements WFWP 30 |
| 4.1.3 | Design the portal formation 33 |
| 4.1.3.1 | URL Registration 33 |
| 4.1.3.2 | Structure of portal design 34 |
| 4.1.3.3 | The comparison WFWP against MMD official website 35 |
| 4.1.4 | Implementation of the portal 40 |
| 4.2 | System maintenance 41 |
| 4.3 | Summary 41 |

CHAPTER FIVE: FINDING AND DISCUSSION

| | |
|-------|---|
| 5.0 | Introduction 42 |
| 5.1 | Questionnaires distribution 42 |
| 5.2 | Requirement phase analysis 45 |
| 5.2.1 | Section A 45 |
| 5.2.2 | Section B 48 |
| 5.3 | Validation and verification phase analysis 51 |

| CONTENTS | PAGE |
|---|-------------|
| 5.3.1 Section A | 51 |
| 5.3.1.1 Interpretation validation and verification of section A | 54 |
| 5.3.2 Section B | 55 |
| 5.3.2.1 Interpretation validation and verification of section B | 61 |
| 5.3.2.2 The clarification through a pie chart | 63 |
| 5.4 Expected findings | 65 |
| 5.5 Summary | 65 |

CHAPTER SIX: CONCLUSION

| | |
|--|----|
| 6.0 Problem and limitations | 66 |
| 6.1 Future plan and recommendation | 67 |
| 6.3 Conclusion of the research project | 68 |

REFERENCES

APPENDIX

| CONTENTS | PAGE |
|---|-------------|
| List of Tables | |
| Table 4.0: The requirement ID name | 29 |
| Table 4.1: Functional and non-functional requirements | 32 |
| Table 4.2: URL registration flow | 34 |
| Table 4.3: The comparison WFWP against MMD official website | 39 |
| Table 5.0: Questionnaires distribution of requirement phase | 43 |
| Table 5.1: Questionnaires distribution of validation & verification phase | 44 |
| Table 5.2: Pictures of recent surveys | 44 |
| Table 5.3: The interpretation of the validation and verification of section A | 54 |
| Table 5.4: The analysis of the validation and verification of section B (Q1 – Q6) | 61 |
| Table 5.5: The analysis of the validation and verification of section B (Q7) | 62 |
| List of Figures | |
| Figure 1.0: Malaysian climate | 3 |
| Figure 2.0: Integrated Functional Requirement Model | 11 |
| Figure 2.1: Waterfall Methodology (Kothari, 1985) | 12 |
| Figure 3.0: Prototyping Methodology (Bowman, 2009) | 18 |
| Figure 3.1: Planning phases (Steele, 2009) | 19 |
| Figure 3.2: Designing phases(Steele, 2009) | 21 |
| Figure 4.0: Use Case Diagram for WFWP | 25 |
| Figure 4.1: Sequence Diagram for WFWP | 40 |
| Figure 5.0: Requirement phase analysis- Section A | 46 |
| Figure 5.1: Requirement phase analysis- Section B | 49 |
| Figure 5.2: Validation & verification phase analysis- Section A | 52 |
| Figure 5.3: Validation & verification phase analysis- Section B (Q1 – Q5) | 56 |
| Figure 5.4: Validation & verification phase analysis- Section B (Q7) | 59 |

| CONTENTS | PAGE |
|---|------|
| List of Bar Chart | |
| Bar chart 1.0: Analysis percentage of section A | 47 |
| Bar chart 2.0: Analysis percentage of section A | 50 |
| Bar chart 3.0: Analysis percentage of section A | 53 |
| Bar chart 4.0: Analysis percentage of section B (Q1 – Q5) | 57 |
| Bar chart 5.0: Analysis percentage of section B (Q7) | 60 |
| Bar charts 5.1: The portal content | 63 |
| Bar charts 5.2: The portal quality | 63 |
| Bar charts 5.3: Easily accessible of portal | 64 |
| Bar charts 5.4: The portal design | 64 |
| Bar charts 5.5: Use of Malay language | 64 |

List of Abbreviations

| List | Abbreviation |
|---------------|---|
| Answ | Answers |
| ICT | Information Communication Technology |
| IP | Internet Protocol |
| ISP | Internet Service Provider |
| ISO | International Organization for Standardization |
| GPRS | General packet radio service |
| GPS | Global Positioning System |
| GOES | Geostationary Operational Environmental satellite |
| HTML | Hyper Text Markup Language |
| MMD | Malaysian Meteorological Department |
| NOAA's | National Weather Service |
| Q | Question |
| Resp | Respondent |
| RTM | Requirements Traceability Matrix |
| SDLC | Software Development Life Cycle |
| SMS | Short Message Service |
| SOS | Descriptions for international Morse code |
| URL | Uniform Resource Locator |
| WAP | Wireless Application Protocol |
| WFWP | Weather Forecast and Warning Portal for Rural Fisherman |
| Widget | A portable chunk of code that can be installed and executed |
| XML | Extensible Mark-up Language |
| %(52R) | Percentage of 52 respondent |
| %(60R) | Percentage of 60 respondent |
| °C | Degree of Celsius |

CHAPTER ONE

INTRODUCTION

This chapter clarifies the main idea of the project, detailing the main element involved in the research. This chapter also describes the general research preparation which related to the current scenario and the basic requirement to lead the project development.

1.0 Introduction

Malaysia has grown rapidly in the field of Information and Communication Technology (ICT). The government and private sector use information technology in planning and making decisions. The internet mobile system too has grown to be an important tool in each country whether in urban or rural areas. Malaysia has more than 100% mobile penetration as advancement in technology had made it easier to use and cost less that make it a flexible tool for rural development.

While ICT is growing rapidly in our country, there are some people who are still lagging behind in ICT development, they are the rural fishermen. They still use traditional methods of weather forecasting as a guide for their daily activities, even as Malaysian Meteorology Department has prepared a variety of Internet facilities to

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